DOCUMENT RESUME

ED 285 916 TM 870 527

TITLE	Student Achievement in New York State, 1985-86.
INSTITUTION	New York State Education Dept., Albany. Div. of Educational Testing.
PUB DATE	Jan 87
NOTE	18p.; Some tables contain small and light print.
PUB TYPE	Reports - General (140)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	*Academic Achievement; *Achievement Tests; Aptitude Tests; *College Entrance Examinations; Elementary Secondary Education; Graduation Requirements; High School Students; Minimum Competency Testing; National Norms; State Norms; State Programs; *State Standards; Talent Identification; *Testing Programs
IDENTIFIERS	Advanced Placement Examinations (CEEB); College Board Achievement Tests; National Merit Scholarship Qualifying Test; New York; New York State Pupil Evaluation Program; *New York State Regents Competency Tests; *New York State Regents Examinations; Scholastic Aptitude Test; Westinghouse Science Talent Search

ABSTRACT

This report summarizes the 1985-86 results for three New York state examination programs--the elementary school Pupil Evaluation Program (PEP) and the high school Regents and Regents Competency Tests. Results on the PEP showed passing rates improved steadily over the last four years. About one-half of New York State's graduating seniors are awarded Regents diplomas each year; the other half take the Regents competency tests; of these 89.5% passed the competency test in reading, 84.6% in writing, and 69.1% in mathematics. Over 98% met the competency testing requirements for graduation. Data were also collected on several national programs: the Scholastic Aptitude Test (SAT), College Board Achievement Tests, College Board Advanced Placement Tests, National Merit Scholarship Qualifying Test (NMSQT), and Westinghouse Science Talent Search. In 1986, New York students' average SAT scores were 427 on Verbal and 471 on mathematics, compared to 431 and 475, nationally. On the Achievement Tests, New York averaged 14 points higher than the national average. Nationally, New York also had 15.7% of the Advanced Placement exams written, 12.8% of commended students on the NMSQT, 49.7% of the students commended on the Westinghouse Search, and 37.5% of the winners of the Westinghouse search. (JGL)

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STUDENT ACHIEVEMENT IN NEW YORK STATE 1985-86

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JANUARY 1987

The University of the State of New York
THE STATE EDUCATION DEPARTMENT
Division of Educational Testing
Albany, New York 12234

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1985-86

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January 1987

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STUDENT ACHIEVEMENT IN NEW YORK STATE: 1985-86

This report summarizes the 1985-86 results for three State examination programs — the Pupil Evaluation Program, the Regents competency tests, and the high school Regents examinations. These results may be used to analyze achievement trends over a period of years or to compare school districts within New York State.

In addition to State test results, selected graduation data and information on several national programs are also provided. These programs permit comparisons between New York State pupils and pupils in other states. Two programs of the College Entrance Examination Board — the Scholastic Aptitude Tests (SAT) and the achievement tests — provide the best data of this type. Data obtained from the Advanced Placement Program, the National Merit scholarship competition, and the Westinghouse Science Talent Search are also included.

Results for each indicator are summarized in the sections that follow.

State Testing Programs

Pupil Evaluation Program

The Pupil Evaluation Program (PEP) was started in 1965 to provide data for use in planning, managing, and evaluating educational programs at both the State and local levels. With the advent of the Regents competency testing program, PEP test scores assumed new importance, because pupils scoring below a designated point — the State Reference Point — must be given remediation.

During 1985-86, the program involved the administration of criterion-referenced reading and mathematics tests to pupils completing grades three and six and the administration of a writing test to pupils completing grade five. The tests were administered in May 1986.

Table 1: Percentages of Pupils Scoring Above State Reference Points on Grade 3 PEP Tests, 1983-1986

Type of School	Grade 3 Reading				Grade 3 Mathematics			
	1983	1984	1985	1986	1983	1984	1985	1986
Public								
New York City	56%	58%	58%	60%	61%	62%	63%	68%
Large City	67	69	72	78	75	77	80	88
Medium City	75	78	81	83	80	85	88	92
Small City	84	84	86	88	85	86	90	94
Large Central and Village	88	90	91	92	90	92	94	97
Medium Central	87	89	90	91	90	91	92	97
Small Central	86	87	90	90	88	89	92	95
Total Public	77	77	78	79	79	80	82	86
Nonpublic	83	84	84	86	82	82	84	89
COMBINED TOTAL	77%	78%	79%	81%	79%	80%	82%	86%

Table 2: Percentages of Pupils Scoring Above State Reference Points on Grade 5 and 6 PEP Tests, 1983-86

Type of School	Grade 5 Writing				Grade 6 Reading				Grade 6 Mathematics			
	1983	1984	1985	1986	1983	1984	1985	1986	1983	1984	1985	1986
Public												
New York City	76%	78%	81%	78%	57%	60%	59%	63%	57%	59%	60%	64%
Large City	74	81	82	81	67	66	71	73	72	72	76	81
Medium City	81	86	87	88	73	76	79	79	72	79	83	87
Small City	82	85	88	89	81	82	85	82	79	82	85	89
Large Central and Village	85	90	92	91	87	88	90	89	86	88	91	93
Medium Central	84	89	90	90	86	86	89	87	85	86	90	92
Small Central	84	88	90	89	87	88	90	88	86	88	90	92
Total Public	81	85	87	86	76	78	78	79	76	78	80	82
Nonpublic	85	86	88	88	84	84	85	83	81	82	83	88
COMBINED TOTAL	82%	85%	87%	86%	78%	79%	80%	80%	77%	78%	80%	83%

Tables 1 and 2 indicate the percentages of pupils scoring above the State Reference Points when the PEP tests were administered in 1983, 1984, 1985, and 1986. Results for pupils with handicapping conditions are not included. The data are arranged by type of school. The "Large City" districts are Albany,

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Table 3: Number of Papers Written and Percent Passing for the June 1986 Regents Examinations

Subject	Number of Papers Written	Percent Passing
Business Subjects		
Bookkeeping-accounting	24,087	78.2%
Business law	12,548	79.0
Business mathematics	15,991	83.1
English		
Comprehensive English	125,815	82.7
Foreign Languages		
Comprehensive French	22,323	90.9
Comprehensive German	3,094	94.7
Comprehensive Hebrew	2,628	94.0
Comprehensive Italian	4,830	87.3
Comprehensive Latin	3,191	93.9
Comprehensive Spanish	43,527	91.9
Mathematics		
Ninth year mathematics	15,515	81.4
Tenth year mathematics	31,920	76.9
Eleventh year mathematics	41,935	77.0
Sequential math, course I	128,470	78.7
Sequential math, course II	79,312	83.8
Sequential math, course III	38,800	80.1
Science		
Biology	125,651	79.0
Chemistry	77,619	81.9
Earth science	62,932	76.3
Physics	39,967	88.8
Social Studies		
Comprehensive social studies	120,202	78.4
June Totals	1,020,357	81.1%

Buffalo, Rochester, Syracuse, and Yonkers. The tables show improvement between 1983 and 1986 in all test results.

Regents Examinations

For more than a century, Regents examinations have been a hallmark of high school education in New York State. Examinations are provided in 21 subjects, and more than one million papers are written during the January, June, and August examination periods. About sixty percent of the pupils in grades 9-12 take at least one Regents examination in a typical school year.

Regents examinations serve a number of purposes. They establish and maintain standards in the most-commonly studied high school subjects. They provide teachers with valid and reliable final examinations. They serve as good predictors of success in postsecondary education. They define important outcomes of instruction and help motivate pupil achievement.

The examinations are developed by classroom teachers in cooperation with the Department's subject and examination specialists. Each examination is based on a Department syllabus.

Table 3 lists the examinations provided in June 1986 and indicates that 81.1 percent of the papers written received passing marks.

Figure 1: Percent of High School Graduates Awarded Regents Diplomas

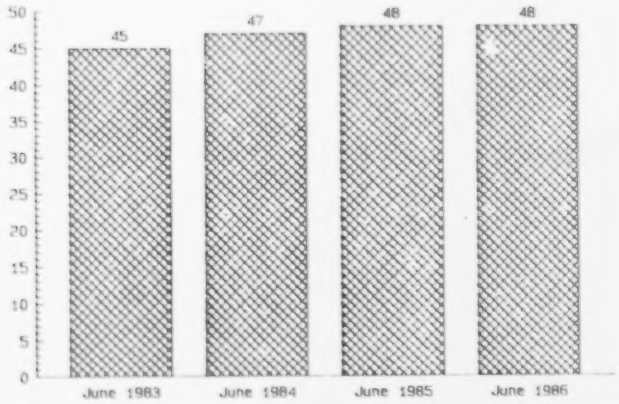


Figure 1 illustrates the percentages of high school graduates awarded Regents diplomas during the past four years. Of the students graduating from high school in June 1986, 48 percent were awarded Regents diplomas. The percentage awarded Regents diplomas has increased over the past four years.

Regents Competency Tests

The Regents Competency Testing Program was established to assure that all pupils receiving high school diplomas have the reading, writing and mathematics skills needed for employment and postsecondary education. About one-half of the pupils graduating from high school each year demonstrate mastery of the basic skills by passing Regents examinations in English and mathematics. The other half take the Regents competency tests in reading, writing and mathematics.

The reading test is a Degrees of Reading Power test, as are the preliminary competency reading test and the third- and sixth-grade Pupil Evaluation Program reading tests. Degrees of Reading Power (DRP) tests indicate the most difficult prose that a pupil can read with comprehension. They are criterion-referenced tests, and their pass marks are related to the readability of textbooks used at designated grade levels.

The writing test is a direct measure of a pupil's ability to organize and present ideas in written form. The test consists of three different types of writing tasks: a business letter, a report, and a composition.

The mathematics test is designed to measure competency in the skills described in the syllabus, "General High School Mathematics." This is the recommended high school mathematics curriculum for pupils not enrolled in Regents mathematics courses. The test questions cover the core areas of: integers and rational numbers, including the fundamental operations of addition, subtraction, multiplication, and division of whole numbers, decimals, and fractions; graphing, including critical analysis and interpretation of graphs and charts; measurement of geometric figures; ratio, proportion, and percent; probability and statistics; and consumer and job-related mathematics.

Pupils take the Regents competency test in mathematics when they complete the prescribed course. For the vast majority of students, the test is taken initially at the end of grade nine. The reading and writing tests are intended to assess skills acquired dur-

ing the high school years, and the tests may not be taken prior to the eleventh grade. Hence, most students take these tests initially in January of their junior year. Table 4 shows the results of non-handicapped pupils for these major administrations during the 1985-86 school year.

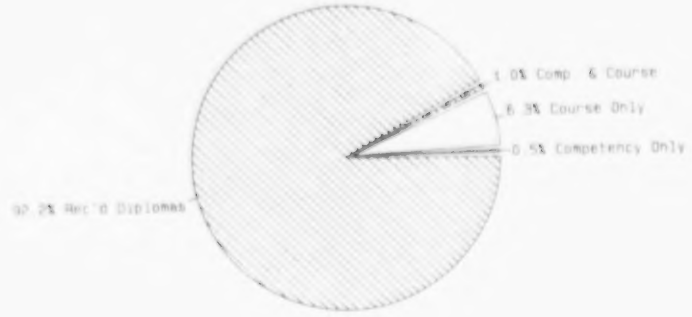
Table 4: Number of Papers Written and Percent Passing for the Major Administrations of the Regents Competency Tests in 1986

	Reading		Writing		Mathematics	
Type of School	Number Written	Percent Passing	Number Written	Percent Passing	Number Written	Percent Passing
Public						
New York City	38,154	82.8%	40,050	77.3%	45,483	54.3%
Large City	6,248	86.1	6,461	85.0	5,093	64.4
Medium City	1,496	89.0	1,704	82.0	2,566	74.2
Small City	6,120	94.4	6,281	85.3	6,861	76.8
Large Central and Village	29,120	93.3	30,521	88.9	31,428	81.6
Medium Central	5,445	95.8	5,693	91.1	4,623	86.7
Small Central	6,157	98.6	6,214	94.4	4,651	90.0
Total Public	92,740	89.0	96,924	84.0	100,705	68.5
Nonpublic	8,362	94.5	8,391	91.8	9,107	75.2
COMBINED TOTAL	101,102	89.5%	105,315	84.6%	109,812	69.1%

The mathematics test proved to be the most challenging. Only 69.1 percent of about 110,000 pupils passed the mathematics test in June 1986. More than 100,000 pupils took the reading and writing tests in January 1986; 89.5 percent passed the reading test, and 84.6 percent passed the writing test. Under the Commissioner's Regulations, pupils failing any competency test must be provided appropriate remediation.

The competency testing requirement prevented few pupils from receiving high school diplomas in June 1986. Of the candidates for graduation, 98.5 percent met the competency testing requirements. As illustrated in Figure 2, only 0.5 percent of the candidates failed to graduate solely because of the competency testing requirements. Another 1.0 percent failed to meet the competency testing requirements but also failed to meet course requirements. In all, only about 3,000 of the 195,000 diploma candidates failed to attain the standards in all three basic skills.

Figure 2: Candidates for High School Graduation
1985-1986



[illegible]% Failed to Meet Only Competency Requirements
[illegible]% Failed to Meet Only Course Requirements
[illegible]% Failed to Meet Both Requirements

National Programs

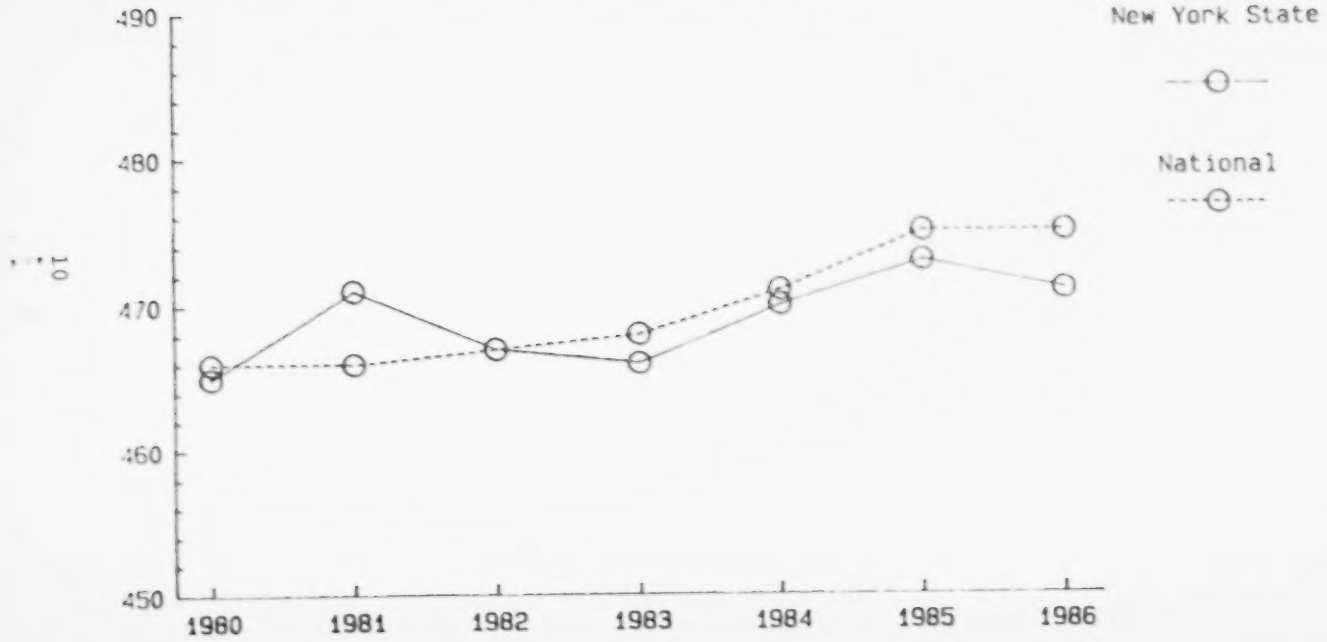
Scholastic Aptitude Tests

As part of its Admissions Testing Program, the College Entrance Examination Board administers Scholastic Aptitude Tests (SAT's) to about one million college-bound seniors each year. There are two SAT's, a verbal test and a mathematical test. The verbal test measures vocabulary and reading comprehension skills. The mathematical test measures the ability to solve problems involving arithmetic reasoning, algebra, and geometry.

Figures 3 and 4 illustrate the trends in SAT scores over the past seven years. During this period, both the State and national averages started upward, ending an extended period of decline. During the past seven years, New York's average score on each test has been within five points of the national average score. This

Figure 3: New York and National Average Scores on the SAT-Verbal, 1980-1986

Figure 4: New York and National Average Scores on the SAT-Mathematical, 1980-1986



average difference is extremely small in comparison to the range of state averages, which is about 150 points.

Since 1980, New York's SAT verbal average has increased from 424 to 427. The math average has increased from 465 to 471. At the same time, the percent of seniors taking the SAT's in New York State has increased by almost seven percent. New York's 129,000 examinees comprised 67 percent of the senior class. Nationwide, only 40 percent of the seniors were tested. Thus, the average SAT scores earned by virtually all college-bound seniors in New York were about the same as those earned by a select group of college-bound seniors nationwide.

New York State and national SAT average scores are summarized in Table 5.

Table 5: Comparison of New York State and National Averages on the Scholastic Aptitude Test (SAT)

Test	New York State 1985	New York State 1986	National 1985	National 1986
Verbal	427	427	431	431
Mathematical	473	471	475	475

College Board Achievement Tests

The College Board's Admissions Testing Program also includes achievement tests, which are rigorous tests offered in 14 different subjects.

New York State students have always performed extremely well on the achievement tests, and 1986 was no exception. Table 6 indicates that the average score earned by New York's college-bound seniors on all tests combined was 14 points higher than the national average. New York's advantage ranged from 57 points in Hebrew to three points in Latin.

Table 6: Comparison of New York State and National Averages on College Board Achievement Tests, 1986

Achievement Tests	Number Written in New York	Average Score		
		New York	National	Difference
English Composition	24,242	526	522	+ 4
Mathematics Level 1	20,291	571	541	+30
Biology	12,317	582	551	+31
Chemistry	6,907	598	571	+27
American History	4,765	555	528	+27
Mathematics Level 2	4,159	678	660	+18
Spanish	3,279	552	535	+17
French	2,491	558	541	+17
Physics	2,413	615	594	+21
Literature	2,225	537	525	+12
European History	427	571	550	+21
German	247	582	574	+ 8
Latin	207	548	545	+ 3
Hebrew	143	661	604	+57
All Tests Combined	29,389	554	540	+14

Other Programs

Three nationwide programs exist in which New York can be compared directly with each of the other states. They are the Advanced Placement Program, the National Merit Scholarship Program, and the Westinghouse Science Talent Search.

The Advanced Placement Program of the College Board consists of courses of study and examinations in 13 disciplines through which high school pupils may earn college credit and placement at approximately 2,000 postsecondary institutions throughout the country. About 206,000 pupils nationwide participated in this program last year.

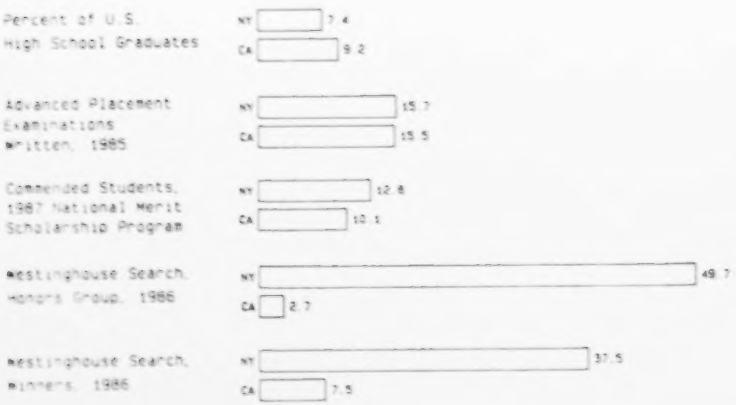
The National Merit Scholarship Program is the nation's largest independently financed competition for college undergraduate scholarships. Each year more than one million pupils take the Preliminary Scholastic Aptitude Test/National Merit Scholarship Qualifying Test to enter the scholarship competition. About 35,000 are commended for their performance and 15,000 are named Semifinalists.

The Westinghouse Science Talent Search is an attempt to discover high school seniors who have the potential to become the research scientists and engineers of the future. The competition involves judging entries submitted by about 1,200 contestants. Winners of this competition, as well as those in the Honors

Group, are frequently offered scholarships by colleges and universities.

New York State consistently holds a preeminent position in these three national programs. The most recent results are illustrated in Figure 5, which compares New York State pupils with pupils from California, a state of comparable size.

Figure 5: Advanced Placement, National Merit, and Westinghouse Science Talent Search: New York and California Compared



Although New York had a smaller percentage of the nation's high school graduates — 7.4 percent as opposed to California's 9.2 percent — New York had a higher percentage of pupils on each significant indicator of quality.

- Advanced Placement: New York pupils wrote 15.7 percent of the Advanced Placement examinations written nationally; California pupils wrote 15.5 percent.
- National Merit: New York had 12.8 percent of the Commended Students; California had 10.1 percent.
- Westinghouse: New York pupils comprised 49.7 percent of the Honors Group and 37.5 percent of the winners; California's pupils made up only 2.7 percent of the Honors Group and 7.5 percent of the winners.

Conclusion

During the 1985-86 school year, New York State's elementary and secondary school students demonstrated high achievement on all available indicators. The Pupil Evaluation Program results for the past four years showed gains on all five tests. The percentage of students meeting the competency testing requirements for a high school diploma remained high, as did the percentage of graduates receiving Regents diplomas.

New York State students compared very favorably with their peers in other states. They led the nation in the Westinghouse Science Talent Search and in the number of Advanced Placement examinations written. They did extremely well in the National Merit Scholarship Competition, and they scored well-above the national average on all College Board achievement tests. Their Scholastic Aptitude Test scores remained close to the national average despite the high proportion of seniors tested.